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ABSTRACT

Permanent curling and straightening require a thorough understanding of hair. Through diligent study and practice the student prepares for a profitable part of a beauty career. The course requires 135 hours of classroom-laboratory instruction. Those entering must have mastered the skills of shaping and conditioning hair. On completion of the course, the student will have an understanding of hair analysis, shampooing and shaping of hair, and will have learned the different types of cold waving lotions and their effects on various types of hair, as well as developing skill in all cold wave techniques. The student will have learned safe, correct techniques for straightening curly hair using different chemical hair relaxers on all types of hair. A basic textbook and student laboratory manual are used, and the use of films, filmstrips, charts, and other aids augments the instruction. A bibliography listing basic and supplementary references and 23 pages of posttest samples complete the course description. (MW)

ED 097507

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AUTHORIZED COURSE OF INSTRUCTION FOR THE QUINMESTER PROGRAM

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Course Outline
COSMETOLOGY 1 - 9205
(Hair-Curvy or Straight)
Department 48 - Quin 9205.04

CE002275

DADE COUNTY PUBLIC SCHOOLS
DIVISION OF INSTRUCTION • 1973

ED 097507

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1 4 5 0 N O R T H E A S T S E C O N D A V E N U E

M I A M I, F L O R I D A 33132

Course Outline

COSMETOLOGY 1 - 9205
(Hair-Curvy or Straight)

Department 48 - Quin 9205.04

county office of

VOCATIONAL AND ADULT EDUCATION

Course Description

9205	48	9205.04	Hair-Curvy or Straight
State Category Number	County Dept. Number	County Course Number	Course Title

Through participation of this unit, the student will demonstrate a knowledge of hair analysis, shampooing and shaping of hair, and will learn the different types of cold waving lotions and their effects on various types of hair, as well as acquire skill in all cold wave techniques. Practice on mannequins and patrons will be stressed. The students learn safe, correct techniques for straightening curly hair using different chemical hair relaxers on all types of hair. This is a three quinmester credit course.

Prior to entry into this course, the vocational student will display mastery of the skills indicated in Shaping and Conditioning Hair. (9205.03).

PREFACE

The following pages contain a course outline entitled Hair-Curvy or Straight.

Permanent curling and straightening require a thorough understanding of hair. Through diligent study and practice the student is rewarded with satisfactory results and prepares for a profitable part of a beauty career.

This quinmester is presented to the student in 135 hours of classroom-laboratory instruction.

The outline is divided into 7 blocks of instruction which are further broken down into a number of units. Upon completion of the course, the student will have an understanding of hair analysis, shampooing and shaping of hair, and will have learned the different types of cold waving lotions and their effects on various types of hair, as well as develop skill in all cold wave techniques. The student will have learned safe, correct techniques for straightening curly hair using different chemical hair relaxers on all types of hair.

Further development of these skills will be maintained throughout each quin. The student will perform these skills in a shop like atmosphere on other students and patrons.

The teaching methods may vary according to the individual ability of the student. As the contents of the course varies, teaching techniques which lend themselves to each particular situation are employed. The instructor used demonstrations and lectures which are supplemented by the performance of laboratory experiments and assignments by the students. A basic textbook and student laboratory manual are used throughout the course. The instruction is further augmented by the use of films, filmstrips,

charts and other aids which make the lessons more meaningful.

The bibliography, which makes up the last pages of the outline, lists the basic and supplementary reference texts and films.

The outline was developed through the co-operative efforts of the instructional and supervisory personnel, the Quinmester Advisory Committee and the Vocational Curriculum Materials Service and has been approved by the Dade County Vocational Curriculum Committee.

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with Suggested Hourly Breakdown

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GOALS

The student cosmetologist will be able to:

1. Explain the principles of permanent waving.
2. Discuss the physical and chemical actions of permanent waving related to hair structure.
3. List by written test the safety precautions required in permanent wave procedures.
4. Demonstrate the proper procedure in cold waving normal, tinted, bleached and problem hair.
5. Define terms related to chemical hair relaxing.
6. Demonstrate the process of relaxing normal and damaged hair.
7. Explain the safety precautions which should be observed in chemical relaxing.
8. Develop skill in performing the manipulative techniques required in the practice of cosmetology.
9. Satisfactorily complete the post test.

SPECIFIC BLOCK OBJECTIVES

BLOCK I - PERMANENT WAVING NORMAL HAIR

The student will be able to:

1. Demonstrate an understanding of the history of permanent waving by satisfactorily completing written test.
2. List the basic fundamentals before a cold wave procedure.
3. State orally the procedure required for cold waving.
4. State orally the difference between the physical and chemical action for cold waving.
5. List the safety precautions used when giving a cold wave to a model.
6. Demonstrate on a model the proper procedure for cold waving hair.

BLOCK II - TINTED, BLEACHED OR PROBLEM HAIR IN COLD WAVING

The student will be able to:

1. Demonstrate on a model the chemical effects of cold waving lotions on tinted, bleached and problem hair.
2. Demonstrate the ability to use cold wave chemicals correctly and safely on tinted, bleached and problem hair.
3. List the safety precautions used in cold waving tinted, bleached and problem hair.

BLOCK III - COLD WAVE CHEMISTRY

The student will be able to:

1. List the effect of cold wave solutions on the hair structure.
2. Discuss the difference between alkaline cold wave solutions and neutral and acid solutions.
3. Explain why under-processing and over-processing in a cold wave occurs.
4. Demonstrate on a model corrective treatments for tinted, bleached and problem hair.
5. Discuss at what point damaged hair occurs when giving a cold wave permanent.

BLOCK IV - KNOWLEDGE AND ANALYSIS OF HAIR

The student will be able to:

1. Explain hair structure and how it is effected by permanent waving.
2. Demonstrate the ability to analyze hair.
3. List the factors which must be considered in hair analysis prior to a cold wave treatment.

BLOCK V - PERMANENT WAVING FOR PRESSED HAIR

The student will be able to:

1. Explain the difference between permanent waving pressed hair and chemically relaxing normal hair.
2. Demonstrate on a model a chemical hair relaxing procedure.
3. Explain and satisfactorily demonstrate on a model the procedure for the two basic types of hair relaxers.
4. List the safety precautions used in chemical relaxing.
5. Demonstrate on a model the procedure of a chemical relaxing treatment.

BLOCK VI - DEVELOPMENT OF MANIPULATIVE SKILLS

The student will be able to:

1. Complete on a model the pattern sets that are considered to be classic sets.
2. Produce satisfactorily on a model or a mannequin all of the types of curls that are required in styling the hair using thermal curling.
3. Construct on a model a hairstyle that will be a special consideration for various characteristics of individuals.

Course Outline

COSMETOLOGY 1 - 9205
(Hair-Curvy or Straight)

Department 48 - Quin 9205.04

I. PERMANENT WAVING NORMAL HAIR

A. The History of Permanent Waving
   1. Definition of permanent waving
   2. Methods of permanent waving
      a. Spiral
      b. Croquignole
      c. Combinations
      d. Machine method
      e. Pre-heat method
      f. Cold wave

B. Basic Fundamentals Before Cold Waving
   1. Pre-cold waving steps
      a. Examine scalp and analyze hair
      b. Shampoo for a cold wave
      c. Shaping before a cold wave
   2. Relationship to the success of a cold wave

C. Chemical and Physical Action of Cold Waving
   1. Two major actions on the hair
      a. Physical action
      b. Chemical action
   2. The function of chemical and physical action

D. Safety Precautions in Cold Waving
   1. Practicing safety procedures
   2. Developing safety procedures into habit

E. Procedure For Normal Hair
   1. Basic Requirements
      a. Hair analysis
      b. Curling rods and chemical
      c. Hair sectioning patterns
      d. Hair blocking and wrapping
      e. Application of waving lotion
      f. Processing
      g. Test curls
      h. Neutralizing
      i. Safety measures
   2. Release Statement and Reference Card
      a. Explanation of release statement and reference card
      b. Importance of release statement and reference card

II. TINTED, BLEACHED AND PROBLEM HAIR IN COLD WAVING

A. Fundamental Differences
   1. Characteristic reaction of tinted, bleached and problem hair in cold waving
      a. Condition
      b. Porosity
      c. Texture
      d. Elasticity
   2. Relationship to the success of cold waving tinted, bleached and problem hair

B. Safety Precautions
   1. Practicing safe procedures
   2. Developing safe procedures into safe habits

C. Procedure For Tinted, Bleached and Problem Hair
   1. Basic Requirements
      a. Hair analysis
      b. Curling rods and chemicals
      c. Hair sectioning patterns
      d. Hair blocking and wrapping
      e. Applying waving lotion
      f. Processing
      g. Test curls
      h. Neutralizing
      i. Safety measures
   2. Special Problems
      a. Dry, brittle or damaged hair
      b. Reconditioning treatments
      c. After care

III. COLD WAVE CHEMISTRY

A. Changes in Hair Structure
   1. The breaking of S and H bonds
      a. Waving lotion
      b. Precautions in using wave lotion
   2. The reforming of cross bonds
      a. Neutralizing
      b. New S bonds are formed

B. Alkaline Solutions
   1. Definition of alkaline solutions
   2. The chemical action
   3. Neutralizers used

C. Neutral and Acid Solutions
   1. Definition of neutral and acid solutions
   2. The chemical action
   3. Neutralizers used

D. Under-Processed Hair
   1. Definition
   2. Curl formation and timing
   3. Factors affecting under-processing

E. Over-Processed Hair
   1. Definition
   2. Maximum processing time
   3. Factors affecting over-processing

F. Damaged Hair
   1. Irreversible damage
      a. Cuticle scales
      b. Texture and elasticity
      c. Peptide (acid bond) breakage
   2. Corrective Treatments
      a. Preventive
      b. Restorative treatments
      c. Hair Shaping

IV. KNOWLEDGE AND ANALYSIS OF HAIR

A. Hair Structure
   1. Composition of hair
      a. Protein composition
      b. Chemical composition
   2. Division of Hair
      a. Hair root
      b. Hair shaft
   3. Structures
      a. Follicle
      b. Papilla
      c. Bulb
   4. Associated structure
      a. Arrector pili muscle
      b. Sebaceous glands
   5. Growth and replacement of hair
   6. Life and density of hair
   7. Color of hair
   8. Directional hair growth
      a. Hair stream
      b. Whorl
      c. Cowlick

B. Hair Analysis
   1. Use of five senses
   2. Quality of human hair
      a. Texture
      b. Porosity
      c. Elasticity
      d. Condition
      e. Density

V. CHEMISTRY RELAXERS

A. Chemical hair relaxing
   1. Normal hair
      a. Importance of hair analysis
      b. Basic steps in relaxing normal hair

2. Pressed hair
   a. Differences in pressed hair
   b. Basic steps in relaxing pressed hair
3. Tinted hair
   a. Differences in tinted hair
   b. Basic steps in relaxing tinted hair

B. Basic Products
1. Chemical hair relaxers
   a. Softening action
   b. Swelling action
2. Neutralizers (fixatives or stabilizers)
   a. Hardening action
   b. Shrinking action

C. Special Types of Relaxers
1. Sodium hydroxide (caustic soda)
   a. Different products and manufacturers directions
   b. Procedure
2. Ammonium thioglycolate (thio)
   a. Comparison with sodium hydroxide relaxers
   b. Procedure

D. Safety Precautions
1. The practice of safety procedures
   a. Hair analysis
   b. Skin and strand tests
   c. Reference cards
2. Importance of Safe Habits
   a. Protection of patron
   b. Protection of operator

E. Retouching
1. New growth
   a. Definition
   b. Procedure
2. Safety Precautions
   a. Importance of each step in retouching
   b. Necessity for safety precautions

VI. DEVELOPMENT OF MANIPULATIVE SKILLS

A. Fingerwaving

B. Pin Curling

C. Patterns of Hair Design

D. Hair Shaping

E. Scalp and Hair Conditioning

VII. QUINMESTER POST TEST

APPENDIX: QUINMESTER POST TEST SAMPLES

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(Hair-Curvy or Straight)

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Job Sheets
Bulletin: Cosmetology Education
Department of Education
Tallahassee, Florida

Job Sheet Title

Number

1. "Permanent Waving - Cold Wave"
8. "Finger Waving and Hair Styling
Hair Straightening - Chemical"

Job Sheets
Miami: Division of Vocational,
Technical, and Adult Education,
Dade County Public Schools

Job Sheet Title

Number

20. "Permanent Waving (Cold Wave)"
21. "Permanent Waving Tinted and Bleached Hair"
26. "Lontay Creme Hair Straightener - Entire Head"
27. "Chemical Straightening for Damaged Hair"

Films:

	Dade County Film Ordering No.
1. Instruction Film on Permanent Waving, 16mm, sound.	7.34
2. Chemical Hair Relaxing, Virgin Hair, Tinted Hair and Touch-up, 16mm, sound.	7.44

A P P E N D I X

Quinmester Post Test Samples

Quinmester Post Test

Name _____ Date _____ Score _____

Hair-Curvy or Straight

Cold Waving Test #1

Complete the following statements with the correct word or groups of words.

1. Cold waving is the process of permanently waving the hair with the use of _____.
2. Cold waving involves two major actions on the hair, namely:
   a. _____ action
   b. _____ action
3. Hair develops and maintains its natural form by means of _____ and _____ cross-bonds in the cortical layer.
4. Processing breaks the _____ and _____ bonds, while _____ reforms them.
5. By means of a scalp and hair analysis, the cosmetologist can better judge the difference in the quality and condition of human hair. Which six qualities should the cosmetologist observe in human hair analysis?
   a. _____
   b. _____
   c. _____
   d. _____
   e. _____
   f. _____
6. The processing time for an cold wave depends much more on hair _____ than on any other factor.
7. Hair _____ refers to the individual size of the hair strand and its degree of coarseness or fineness.
8. Hair _____ is the ability of the hair to stretch and contract.

9. Hair density is the amount of hair strands per square inch. Always avoid _____ blocks on a thin hair growth.

10. Hair cannot successfully be permanent waved if the hair strand is longer than _____ inches.

11. The distance through the center of the rod is called the _____.

12. The _____ is the distance around the rod.

13. Cold wave rods range in circumference sizes from _____ inches to _____ inches.

14. There are two types of rods in general use: concave and _____.

15. Which type of rod is used to create the same size curl throughout the entire hair strand? _____

16. The basic ingredient of a cold wave lotion is _____.

17. What is the purpose of using a protein filler prior to a cold wave treatment? _____.

18. The main ingredient of a neutralizer is _____.

19. Neutralizers come in three various forms.

    a. _____

    b. _____

    c. _____

20. Dividing the head into uniform working panels is called _____, while subdividing these panels is called _____.

21. What factor determines the size of the wave formation? _____.

22. The four popular blocks used in cold waving are:

    a. _____

    b. _____

    c. _____

    d. _____

23. The chemical process of the cold waving procedure depends upon two separate lotions:

The _____ _____ produces the curl formation by rearranging the chemical bonds in the hair. The _____ reforms the chemical bonds and rehardens the hair in its new curled position.

24. There are two methods of neutralizer application:

a. _____

b. _____

25. After the hair has been properly neutralized, make sure the hair is rinsed with first _____ water, followed with a _____ water rinse.

Safety Rules and Reminders When Giving a Cold Wave

Complete the following sentences.

26. Analyze the _____ and _____ before giving a cold wave.

27. Eliminate vigorous _____ and _____ of the scalp before a cold wave.

28. Always _____ the hair before giving a cold wave to give a shaped style.

29. When applying waving lotion, be sure the curls are thoroughly _____.

30. Do not allow patron to sit in a _____ while hair is processing.

31. Always follow _____ instructions.

32. Do not use a _____ rinse immediately after a cold wave.

33. If lotion gets into patron's eyes, wash with _____ then apply _____if necessary.

34. A cold wave cannot be given over a _____ dye.

35. What solution is used for curl reduction? _____

Quinmester Post Test

Name _____ Date _____ Score _____

Hair-Curvy or Straight

Cold Wave Test - Procedure for a Cold Wave

Place the correct letter from Column II in Column I, putting the correct procedure in their correct order.

COLUMN I	COLUMN II
1. _____	a. Section and block hair
2. _____	b. Shampoo and thoroughly rinse hair, towel dry
3. _____	c. Blot excess moisture from the hair would on the rods, with absorbant towel
4. _____	d. Apply protective cream or cotton around patron's hair line
5. _____	e. Examine scalp and hair
6. _____	f. Unwind rods and remove carefully, towel dry and set hair
7. _____	g. Shape hair
8. _____	h. Apply cold wave lotion to rods, test curl immediately, process for required time
9. _____	i. Rinse hair with tepid water, then cool water
10. _____	j. Apply neutralizer and retain for required time
11. _____	k. Processed to wrap the hair
12. _____	l. Prepare materials and drape patron
13. _____	m. Follow clean up procedure

Quinmester Post Test

Name _____ Date _____ Score _____

Hair-Curvy or Straight

Part I Cold Waving

1. The purpose of neutralizing is to:

   a. soften the hair
   b. harden the hair
   c. change the hair shape
   d. allow the hair to assume the shape of the rod

2. How many solutions are used in cold waving?

   a. 4
   b. 3
   c. 2
   d. 1

3. The choice of rods for a cold wave are determined by:

   a. hair texture and elasticity
   b. hair porosity length
   c. the amount of curl desired
   d. the condition of the patron's hair

4. In blocking the hair for a cold wave which pattern can be used?

   a. single halo
   b. double halo
   c. straight back
   d. any of the above patterns

5. Too much hair around the rods will result in:

   a. hair breakage
   b. increased penetration of the lotion
   c. tight curls
   d. uneven wave formation

6. Stretching the hair during the cold wave wrapping will cause:

   a. a smooth curl
   b. better penetration of the lotion
   c. breakage
   d. an even curl

7. Hair ends wrapped smoothly on porous end papers will prevent:

   a. curl formation
   b. fish hooks
   c. processing
   d. neutralizing

8. A method of determining in advance how a patron's hair will react is by means of:

   a. test curls
   b. application of the neutralizer
   c. straight back wrapping
   d. single halo wrapping

9. How far from the scalp should the cold wave solution be applied?

   a. two inches
   b. one inch
   c. one-half inch
   d. none of the above

10. How soon should the curl be checked after application of the cold wave solution?

    a. ten minutes
    b. five minutes
    c. immediately after application
    d. refer to reference card and follow timing

11. The firmness and depth of the "S" pattern:

    a. governs the neutralizing time
    b. governs the processing time
    c. is not important in cold wave
    d. is always the same

12. If the hair is very curly when wet and frizzy when dry is a result of:

    a. processing
    b. under-processing
    c. over-processing
    d. neutralizing

13. Improper neutralizing will result in:

    a. a tight wave
    b. deep ridged patterns
    c. over-processing
    d. under-processing

14. Which of the following should be avoided before cold waving?

    a. hair analysis
    b. shampooing
    c. brushing
    d. shaping

15. An important first step in cold waving is to:

a. arrange supplies
b. seat patron
c. shampoo the hair
d. shape the hair

16. In cold waving tinted or bleached hair, the solution should be applied:

a. before wrapping the hair
b. while you are wrapping the hair
c. after wrapping the hair
d. none of the above

17. Small hair sections and small rods are recommended for:

a. coarse hair
b. fine hair
c. bleached hair
d. tinted hair

18. If a cold wave band presses against the hair it will:

a. produce a smooth pattern
b. insure a tight curl
c. lossen the rod
d. cause breakage

19. The two major actions involved in cold waving are:

a. chemical and physical
b. shampooing and drying
c. processing and neutralizing
d. none of the above

20. Thin, fine hair usually produces a:

a. no pattern
b. deep pattern
c. shallow pattern
d. curly pattern

21. Pick-up curls are usually given:

a. at the nape
b. at the crown
c. in alternating patterns
d. in circular patterns

22. A dropped crown produces:

a. a deep wave
b. body curls
c. a curly effect
d. a smooth effect

23. Cold wave solutions:

a. soften the hair
b. should be used carefully
c. vary in strength
d. all of the above

24. Reapplication of the cold wave solution during the processing time:

a. will hasten the cold wave process
b. will not affect timing
c. will slow the cold wave
d. is undesirable

25. A cold wave reference card:

a. is of no value
b. should be given to the patron
c. should be filed in the salon
d. is the same as a release statement

Part II - Hair Analysis and Safety

26. The ability of the hair to absorb moisture is called:

a. porosity
b. density
c. texture
d. condition

27. Hair with poor porosity:

a. requires a longer processing time
b. requires a short processing time
c. absorbs chemicals quickly
d. is found in normal hair

28. Soft, limp, spongy hair are signs of:

a. good elasticity
b. poor elasticity
c. curly hair
d. straight hair

29. If the hair stretches without breaking it is an indication of:

a. hair density
b. poor elasticity
c. good elasticity
d. poor porosity

30. Fine textured hair feels:

a. coarse
b. wiry
c. harsh
d. soft

31. Hair analysis should be given:

a. before the cold wave
b. after the cold wave
c. one month before the cold wave
d. one month after the cold

32. Hair with extreme porosity requires:

a. a strong cold wave solution
b. a mild cold wave solution
c. a normal cold wave solution
d. none of the above

33. If the hair cuts easily when dry this indicates that the hair is:

a. elastic
b. resistant
c. porous
d. wavy

34. A strong firm cold wave will not develop in:

a. normal hair
b. springy hair
c. coarse hair
d. limp hair

35. The more porous the hair is:

a. the smoother the curl
b. the slower it absorbs the solution
c. the more processing time is required
d. the less processing time is required

36. If the hair has lost its elasticity:

a. it will not absorb liquids
b. there will be very little curl
c. there will be no curl in the hair
d. the hair will feel harsh

37. Hair density refers to:

a. the amount of hair on the scalp
b. the ability to absorb chemicals
c. the amount of rods in the hair
d. the color of the hair

38. When the cuticle layers lay close to the hair shaft the hair is:

a. porous
b. resistant
c. elastic
d. dense

39. Hair elasticity:

a. always remains the same
b. changes from time to time
c. is not affected by shampoo
d. is not important in cold waving

40. Resiliency in a curl refers to:

a. spring and elasticity
b. porosity and absorbency
c. texture
d. condition

41. The patron's clothing is protected by:

a. careful application of the solution
b. proper shampooing
c. careful brushing
d. proper draping

42. A draft or air conditioning in a salon will:

a. not affect the cold wave
b. hasten the action of the cold wave
c. slow the action of the cold wave
d. cause a tight curl in the hair

43. Vigorous brushing and massage will:

a. not affect the scalp
b. cause scalp irritation
c. is recommended before a cold wave
d. is always given to a patron

44. Normal strength solution on bleached hair:

a. will cause breakage
b. will not affect the hair
c. is used professionally
d. is sometimes used

45. A heavy cream conditioner used before a cold wave:

a. is always recommended
b. will sometimes affect the waving action
c. is very expensive
d. none of the above

46. Breakage or discoloration may result when a cold wave is given to hair treated with:

a. metallic dye
b. aniline derivative dye
c. color rinse
d. conditioner

47. When in doubt about a patron's hair what is recommended?

a. a conditioner
b. a shaping
c. a shampoo
d. a test curl

48. If a patron requests a hair tint and cold wave on the same day:

a. tint first
b. cold wave first
c. shape first
d. advise against it

49. The use of metallic bowls in cold waving will:

a. not affect the hair
b. cause some discoloration
c. strengthen the solution
d. none of the above

50. Heat applied prior to a cold wave will:

a. improve the curl
b. affect the shaping
c. irritate the scalp
d. relax the patron

Part III Chemistry of Cold Waving

51. The penetration of the cold wave waving solution into the cortex must be:

a. controlled by the operator
b. applied after neutralization
c. slow for best results
d. rapid and uniform

52. In cold waving, the decision to apply waving solution before or after winding the hair on the rods, will depend upon:

a. the condition of the hair, texture and porosity
b. the speed of the operator to wrap the hair
c. the strength and type of cold wave solution used
d. a, b, and c are correct

53. When the processing of hair in cold waving has reached a satisfactory stage, the next step is:

a. to apply neutralizer
b. to rinse, with water and towel blot
c. to apply additional waving lotion
d. to remove the rods from the hair

54. The main function of a neutralizer is to:

a. adjust polypentide chains
b. reform the "h" bonds
c. reform the "s" bonds
d. reform the peptide bonds

55. The typical p^{H} range for alkaline cold wave solutions is:

a. 4.0 to 7.0
b. 5.5 to 7.5
c. 9.2 to 9.8
d. 10.5 to 11.5

56. Neutralizers used in cold waving are rich in:

a. nitrogen atoms
b. hydrogen atoms
c. oxygen atoms
d. sulphur atoms

57. Most cold wave neutralizers contain:

a. proteins
b. conditioners
c. hydrogen peroxide
d. hydroxide atoms

58. If neutralizer is applied before a sufficient number of chemical bonds of the cortex have been broken, the hair will be:

a. under-processed
b. over-processed
c. frizzy
d. broken

59. If cold wave processing is continued beyond the stage of what might be considered over-processed, hair will be:

a. loosily curled
b. shiney and lustrous
c. damaged and cannot be corrected
d. damaged and can be corrected

60. When the imbrications of the cuticle layer are far apart, the hair will have:

a. good elasticity
b. a highly resistant condition
c. a porous condition
d. no porosity at all

61. When giving a cold wave treatment it is best to give the cold wave in a room that is:

a. cold
b. very hot
c. warm
d. air conditioned

62. When a cold wave permanent wave is given in an overly air-conditioned salon there is a possibility of:

a. the hair being over-processed
b. the hair being kinky
c. a shorter processing time
d. a longer processing time

63. The purpose of rinsing and towel blotting the hair after processing has taken place is to:

a. remove excess waving lotion from the hair
b. help harden the cortex
c. neutralize the hair
d. keep the waving solution locked in

64. When permanently waved hair is exposed to sunlight, the wave is:

a. deepened
b. weakened
c. unaffected
d. encouraged

65. Physiological conditions such as old age, pregnancy, long illness, etc, will:

a. cause the hair to grow more rapidly
b. not affect the permanent wave process
c. affect the permanent wave process
d. helps the permanent wave process

66. Prior to giving a cold wave, it is best to condition the hair, to help:

a. restore the cuticle
b. increase the porosity of the hair
c. equalize the porosity of the hair
d. restore the medulla

67. Cuticle damage is most likely to occur due to:

a. acid treatments
b. alkaline treatments
c. protein treatments
d. neutral chemical treatments

68. Excess waves can be removed from over-proccessed hair by combing through with additional:

a. water
b. conditioner
c. neutralizer
d. processing solution

69. Thio-type cold wave lotions break "s" bonds and can also:

a. break end bonds
b. close cuticle imbrications
c. condition the hair
d. strengthen the hair

70. The waving action of cold waving solutions acts mainly upon the:

a. cuticle
b. medulla
c. cortex
d. cuticle scale

Part IV Chemical Hair Relaxing

71. In chemical hair straightening, the processing time is determined by:

a. the strength of chemical used
b. the condition fo the cuticle
c. the texture of hair
d. a, b, and c are correct

72. Chemically straightening the hair with a "thio" product most closely resembles:

a. hair pressing
b. heat permanent waving
c. cold waving
d. thermal curling

73. After the processing cream is applied to the hair, the hair strands are arranged in a straight position by:

a. the neutralizer
b. hard and comb manipulation
c. the processing cream
d. condition

74. After the hair has been treated with a sodium hydroxide relaxer and prior to the application of the shampoo the hair should be:

a. thoroughly combed
b. thoroughly dried
c. thoroughly rinsed
d. thoroughly brushed

75. Before applying a "thio" type chemical hair relaxer, the hair should be:

a. shampooed
b. neutralized
c. dryed
d. brushed

76. If chemical relaxer is applied for hair which has been hot-combed treated it would result in:

a. over curly hair
b. hair breakage
c. tangled hair
d. hair discoloration

77. A sodium hydroxide chemical hair relaxer, if left on the skin may:

a. feel cool to the skin
b. feel soothing to the skin
c. discolor the skin
d. irritate the skin

78. The action of the chemical hair relaxer is to cause the hair to:

a. swell and soften
b. shrink
c. harden and set
d. form new curls

79. The scalp and skin are protected from possible burns in chemical relaxing by:

a. applying gentian violet jelly to the scalp
b. applying a stabilizer to the scalp
c. applying soap to the scalp
d. applying a base to the scalp

80. When left on the hair longer than ten minutes, sodium hydroxide chemical relaxer can:

a. restore the medulla
b. become beneficial to the hair
c. dissolve the hair
d. shrink the cuticle

81. The neutralizer used following a thio-type chemical hair relaxer:

a. is neutral in nature
b. is mildly acid
c. is mildly alkaline
d. is none of the above

82. In the case of thio-type hair relaxers, the process that reforms broken "s" bonds is known as:

a. reduction
b. hydrolysis
c. oxidation
d. processing

83. In order to determine whether or not the patron is allergic to the chemical relaxer give a::

a. neutralizer test
b. hair test
c. strand test
d. patch test

84. Chemical hair straightening represents a:

a. surface change
b. oxidation change
c. physical change
d. chemical change

85. Combing out tangles from the hair after a chemical relaxing treatment may cause hair:

a. reversion
b. discoloration
c. breakage
d. straightness

Quinmester Post Test

Name _____ Date _____ Score _____

Chemistry of Cold Waving

True or False

_____ 1. A shampoo cleanses and prepares the hair for cold waving.

_____ 2. Cold wave solution may be applied before or after winding the hair.

_____ 3. Different types of neutralizers have different purposes.

_____ 4. Normal cold waving alters only half the original "S" bonds into a wave.

_____ 5. The two main types of cold waving solutions are alkaline solutions and neutral and acid solutions.

_____ 6. Ammonium thioglycolate solutions are weak reducing agents.

_____ 7. Neutralizers are rich in oxygen.

_____ 8. Cold wave solutions contain hydrogen peroxide.

_____ 9. Most of these type neutralizers are mild acid solutions.

_____ 10. The p^H of cold wave solutions is 3.0 to 4.0.

_____ 11. The difference between alkaline and acid cold wave solutions is the neutralizer.

_____ 12. Excess curl can be removed by combing processing solution through the curls followed by a water rinse and neutralizer.

_____ 13. Over-processing causes irreversible damage.

_____ 14. In cold waving, cross bonds must be broken and keratin chains arranged.

_____ 15. If the curls are neutralized too soon, the hair will be over-processed.

_____ 16. Chemical changes take place quicker as the temperature goes down.

_____ 17. For resistant hair, a stronger cold wave solution should be used.

_____ 18. Cold wave solutions penetrate virgin hair more slowly than color treated hair.

_____ 19. If cold waving solution is not properly rinsed from the hair, the action of the neutralizer is impaired.

_____ 20. Damaged cuticle can be treated with fillers and conditioner before processing.

_____ 21. Alkaline cold wave solutions are recommended for bleached hair.

_____ 22. Shrinking and hardening of the cortex is caused by mild acids in neutralizers.

_____ 23. In modern cold waving, "S" and "H" bonds are not affected.

_____ 24. Proper wetting of hair fibers, followed by towel drying, decreases the rate of absorbtion of solution.

_____ 25. Straight hair can be premanently curled without chemicals.

Quinmester Post Test

Name _____ Date _____ Score _____

Chemical Relaxing

True or False

_____ 1. Chemical hair relaxing temporarily rearranges the structure of hair from curly to straight.

_____ 2. The two basic products in chemical relaxing are: chemical hair relaxer and straightener.

_____ 3. In chemical relaxing, all manufacturers directions are the same.

_____ 4. Another name for the neutralizer is stabilizer or fixative.

_____ 5. Chemical relaxing involves three basic steps: processing, neutralizing and conditioning.

_____ 6. Hair that has been tinted lightened or hot combed recently should not receive a chemical relaxing treatment.

_____ 7. For fine, wooly hair a mild relaxer is recommended.

_____ 8. A release statement contains a patron's hair history.

_____ 9. Analysis of the patron's hair is not included in a chemical relaxing procedure.

_____ 10. A thorough scalp examination, skin test, and patch test are important steps in chemical relaxing.

_____ 11. A pull test determines the degree of porosity in the hair.

_____ 12. The chemical relaxer should be carefully applied around an abrasion.

_____ 13. A patch test should be applied 24 hours before a relaxer treatment.

_____ 14. No shampoo is given before a sodium hydroxide relaxer treatment.

_____ 15. A chemical relaxer is rubbed vigorously into the patron's hair.

_____ 16. All hair relaxers are timed the same.

_____ 17. Some stabilizers may be used as a setting lotion after a relaxer treatment.

_____ 18. Firm massage is recommended when shampooing after a relaxer treatment.

_____ 19. Avoid getting the relaxer on unprotected skin.

_____ 20. In retouching, a chemical relaxer is applied to the new growth.

_____ 21. Another name for a thio relaxer is sodium hydroxide.

_____ 22. The hair is shampooed before a thio relaxer.

_____ 23. After a chemical relaxer treatment, a period for four to six weeks should be allowed before a hot iron treatment.

_____ 24. The relaxer should be applied to the curliest area first.

_____ 25. A record card for a patron is not always required.

Quinmester Post Test Answer Sheet

Hair-Curvy or Straight

Cold Waving Test #1

1. chemicals
2. a. physical
   b. chemical
3. physical and chemical
4. physical and chemical neutralizing
5. a. texture
   b. porosity
   c. elasticity
   d. scalp condition
   e. density
   f. length
6. porosity
7. texture
8. elasticity
9. large
10. six
11. diameter
12. circumference
13. 3/4 to 1/8"
14. straight
15. straight
16. ammonium thioglycolate
17. protection to the hair
18. peroxide
19. a. liquid
    b. powder
    c. crystal
20. sectioning, blocking
21. size of rods and blocking
22. single halo, double halo, straight back, dropped crown
23. waving lotion, neutralizer
24. director or on the rod method
25. tepid, cool
26. hair-scalp
27. brushing-massaging
28. shape
29. saturated
30. draft
31. manufacturer's
32. color
33. water-neutralizer
34. metallic
35. cold wave lotion

Quinmester Post Test Answer Sheet

Hair-Curvy or Straight

Cold Wave Test - Procedure for a Cold Wave

1. L
2. E
3. B
4. G
5. A
6. K
7. D
8. H
9. I
10. C
11. J
12. F
13. M

Quinmester Post Test Answer Sheet

Hair-Curvy or Straight

Part I
Cold Waving

1. B
2. C
3. A
4. D
5. D
6. C
7. B
8. A
9. C
10. C
11. B
12. C
13. C
14. C
15. A
16. C
17. B
18. D
19. A
20. C
21. A
22. D
23. D
24. A
25. C

Part II
Hair Analysis and Safety

26. A
27. A
28. B
29. C
30. D
31. A
32. B
33. C
34. D
35. D
36. C
37. A
38. B
39. B
40. A
41. D
42. C
43. B
44. A
45. B
46. A
47. A
48. D
49. B
50. C

Part III
Chemistry of Cold Waving

51. D
52. D
53. D
54. C
55. C
56. C
57. C
58. A
59. C
60. C
61. C
62. D
63. A
64. B
65. C
66. C
67. B
68. B
69. A
70. C

Part IV
Chemical Hair Relaxing

71. D
72. C
73. B
74. C
75. A
76. B
77. D
78. A
79. D
80. C
81. B
82. A
83. D
84. D
85. C

Quinmester Post Test Answer Sheet

Hair-Curvy or Straight

Chemistry of Cold Waving

1. True
2. True
3. False
4. True
5. True
6. False
7. True
8. True
9. True
10. False
11. False
12. True
13. True
14. True
15. False
16. False
17. True
18. True
19. True
20. True
21. False
22. True
23. False
24. False
25. False

Quinmester Post Test Answer Sheet

Hair-Curvy or Straight

Chemical Relaxing

1. False
2. False
3. False
4. True
5. True
6. True
7. True
8. False
9. False
10. True
11. False
12.
13. True
14. True
15. False
16. False
17. True
18. False
19. True
20. True
21. False
22. True
23. True
24. True
25. False